



- NOTE: TIGHTENING INSTRUCTIONS:
1. SEAT SCREW ON WASHER STACK FINGER TIGHT ONLY. (NO FREE PLAY)
 2. ALTERNATING FROM ONE SCREW BANK TO THE OTHER ... INSERT AN ALLEN WRENCH AND ROTATE (TIGHTEN) 11° TO 14° ONLY WHICH WILL YIELD APPROXIMATELY 1.2 TO 1.5 POUNDS OF FORCE FOR EACH SCREW. (DO NOT OVERTIGHTEN AND THEN BACK-OFF TO CORRECT VALUE)

REF. SOURCE

1 U-C COMPONENTS, INC
410 LOGUE
MOUNTAIN VIEW, CA. 94043-4019
415-964-3827
FAX: 415-964-0216

3 ASSOCIATED SPRING BARNES GROUP, INC.
18 MAIN STREET
CONN. 06010
203-582-9581

2 (SWAGELOK)
DEARBORN VALVE & FITTING CO.
1540 N. OLD RAND ROAD
P.O. BOX 847
WAUCONDA, IL. 60084-0847
708-526-6900
FAX: 708-526-1221

NOTES:

1. THIS IS A ULTRA - HIGH VACUUM ASSEMBLY (UHV)
2. ASSEMBLY SHALL BE LEAK TESTED USING A MASS SPECTROMETER WITH MINIMUM SENSITIVITY FOR HELIUM OF 2X 10⁻¹⁰ STANDARD CC/SEC PER LEAK METER DIVISION, SUCH AS:
ALCATEL ASM-110TCL
VARIAN NCR 925 OR 936
VEECO MS-9, MS-90 OR MS-18
Du PONT CEC 24-120B

CALIBRATION OF THE LEAK DETECTOR SENSITIVITY SHALL BE PERFORMED JUST PRIOR TO TESTING.

FINAL TEST WILL CONSIST OF SURROUNDING THE ASSEMBLY (BAGGING) WITH HELIUM. THE CHAMBER WILL BE REJECTED IF A 2% DEFLECTION IN THE MOST SENSITIVE RANGE OF THE LEAK DETECTOR IS SENSED WITHIN 1 MIN.

3. DIMENSIONS IN [] ARE MILLIMETERS AND FOR REF. ONLY

INSTRUCTIONS FOR INSTALLATION OF TUBING

1. BEFORE ASSEMBLY OF SWAGELOK MALE CONNECTORS, USE SILVER COOP THREAD LUBRICANT (FROM SWAGELOK CO.) TO ALLOW CONNECTION TO BE DISASSEMBLED WITHOUT SPECIAL TOOLS.
2. INSTALL THE TUBE INTO THE FITTING UNTIL IT IS BOTTOMED AGAINST THE SHOULDER OF THE BODY.
3. TIGHTEN NUT TO APPR. 1/8 TURN PAST FINGER TIGHT.
4. SCRIBE A LINE ON NUT AT 6 O'CLOCK.
5. HOLDING THE FITTING WITH A WRENCH, TIGHTEN NUT PAST ONE COMPLETE TURN AND STOP TURNING WHEN SCRIBE MARK IS AT 9 O'CLOCK. (1-1/4 TURN)
6. SUFFICIENT PULL-UP IS REACHED WHEN SWAGELOK GAP INSPECTION GAGE (MS-IG-468) DOES NOT FIT INTO GAP BETWEEN NUT AND BODY.
7. WATER PRESSURE TEST AT 500 PSI AFTER ASSEMBLING.

9	B0281-015-S	BELLEVILLE SPRING WASHER FOR #6 SCREW	SST	40
8	SS-600-1-4	CONNECTOR MALE TUBE FITTING	SST	4
7	C-604-A	#6 - 32 X 1/4 LG. VENTED SOC. HD. SCREW	SST	10
6	P4102010109-200001	4" I.D. BE WINDOW TUBING	SST	1
5	P4102010109-910100	W1-91 LEFT VACUUM FLANGE WELDMENT ASSY.		1
4	P4102010109-910004	W1-91 FILTER CLAMP	OFHC COPPER	1
3	P4102010109-910003	W1-91 FILTER FOIL	GRAPHITE	1
2	P4102010109-910002	W1-91 RIGHT END VACUUM FLANGE	SST	1
1	P4102010109-910001	W1-91 MAIN BODY	GLID-COP/SST	1

ITEM	DWG/PART NUMBER	NOMENCLATURE OR DESCRIPTION	MATERIAL / SPEC	QTY
PARTS LIST				
UNLESS OTHERWISE SPECIFIED: ALL DIMENSIONS ARE IN INCHES DECIMALS ANGLES X XX - .01 (0.25) - .02 XXX - .005 (0.125) - .01				
SURFACE ROUGHNESS 125				
REMOVE ALL BURRS AND BREAK SHARP EDGES (RADIUS)				
SURFACE TEXTURE TO BE IN ACCORDANCE WITH MIL-STD-19160				
TOLERANCES TO BE IN ACCORDANCE WITH LATEST ANSI Y14.5				
DO NOT SCALE DRAWING				
THIS DRAWING IS THE PROPERTY OF ARGONNE NATIONAL LABORATORY				
LOG NUMBER A1980300				
DRAWN BY MUSCIA				
DATE 8/2/94				
CHECKED BY J. WOTHE				
DATE 9/25/94				
DESIGNER SHUMUSCIA				
DATE 9/25/94				
RESPONSIBLE ENGINEER D. SHU				
DATE 9/25/94				
APPROVED/RELEASED				
MATERIAL SEE PARTS LIST				
SCALE 1:1				
SHEET 1 of 1				
DRAWING NUMBER P4102010109-910000-00				

BY	CHANGE DESCRIPTION	BY	CHKD	DATE